



IALA STANDARD

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DIGITAL COMMUNICATION TECHNOLOGIES

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1. INTRODUCTION

IALA publishes Standards, Recommendations, and Guidelines for the global harmonisation of the provision, maintenance, and operation of marine aids to navigation, to foster the safe, economic, and efficient movement of vessels, and for the protection of the environment.

They are defined as follows.

| Document | Definition |
|-----------------------------|--|
| IALA Standards | IALA Standards form a framework, implementation of which by all coastal states will harmonize marine aids to navigation worldwide. IALA standards cover technology and services and are non-mandatory. |
| IALA Recommendations | IALA Recommendations specify what practices shall be carried out in order to comply with a Recommendation, and may be referenced, in full or in part, in an IALA Standard. |
| IALA Guidelines | IALA Guidelines describe how to implement practices normally specified in a Recommendation. |

2. PURPOSE

The IALA Strategic Vision for the period 2014-2026, adopted by the General Assembly in 2014, had two Goals, the first of which is to

“Ensure that aids to navigation systems and related services, including e-Navigation, Vessel Traffic Services, and emerging technologies, are harmonized through international cooperation and the provision of standards.”

IALA Standards are suitable for direct citation by States in the interest of an efficient and harmonised global network of aids to navigation and services.

3. APPLICATION

This Standard is suitable for implementation by all marine aids to navigation authorities.

4. SCOPE

IALA Standards may contain Normative and Informative provisions.

Normative provisions are those with which it is necessary to conform in order to claim compliance with the Standard.

Informative provisions are those which specify additional desirable practices but with which it is not necessary to conform in order to claim compliance with the Standard.

This Standard references Normative and Informative provisions, detailed in the listed IALA Recommendations, covering the following scope.

- Wide and Medium Bandwidth systems (AIS and VDES)
- Narrow Bandwidth systems (NAVDAT, MF beacons)
- Maritime Internet of Things (Intelligent sensors, AtoN monitoring)

5. REFERENCED DOCUMENTS

In this Standard, any reference to a Recommendation is to the most recent version approved by the IALA Council.

In this Standard the word 'shall' is used to indicate that a provision is Normative and so is to be followed in order to comply with the standard. The word 'should' introduces Informative provisions.

The following Recommendations are **Normative** provisions, and **shall** be observed if compliance with this Standard is claimed.

| Scope | Number | Title |
|---|--------|--|
| Wide and Medium Bandwidth systems (AIS and VDES) | A-123 | The Provision of the Shore Based Automatic Identification System (AIS) |

The following Recommendations are **Informative** provisions and **should** be observed if compliance with this Standard is claimed.

| Scope | Number | Title |
|---|--------------------------|---|
| Wide and Medium Bandwidth systems (AIS and VDES) | A-124 | The AIS Service |
| | A-124 APPENDIX 0 | References, Glossary of terms and Abbreviations |
| | A-124 APPENDIX 1 | Basic AIS Services, AIS Data Model and AIS Service specific MDEF sentences |
| | A-124 APPENDIX 3 | Distribution model |
| | A-124 APPENDIX 4 | Interaction and Data Flow Model of the AIS service |
| | A-124 APPENDIX 5 | Interfacing model of the AIS Service |
| | A-124 APPENDICES 9/10/11 | Functional Description of the AIS Service components (AIS-PCU, AIS-LSS & AIS-SM) |
| | A-124 APPENDIX 12 | Co-location issues at AIS Physical Shore Stations (AIS-PSS) and on-site infrastructure considerations |
| | A-124 APPENDIX 14 | FATDMA Planning and Operation of an AIS Service |
| | A-124 APPENDIX 16 | DGNSS Broadcasts from an AIS Service |
| | A-124 APPENDIX 17 | Channel Management by an AIS Service |
| | A-124 APPENDIX 18 | VDL Load Management |
| | A-124 APPENDIX 19 | Satellite AIS Considerations |

6. SUPPLEMENTARY ELEMENTS

There are no supplementary elements to this Standard.

7. **ADOPTION OF AND AMENDMENT OF STANDARDS**

IALA Standards may be adopted or amended by a majority vote at a General Assembly of national members.

8. **DOCUMENT HISTORY**

| Date | Amendment Details | Approval |
|------------|-------------------|--|
| 2018-06-01 | First issue | General Assembly Resolution, Incheon, Korea, May 2018. |

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